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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,904	01/24/2001	Lap-Wai Chow	B-3964 618029-8	4228

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09/10/2003

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EXAMINER

NGUYEN, JOSEPH H

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,904

Applicant(s)

CHOW ET AL.

Examiner

Joseph Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20,23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20,23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 5, it is not understood how a metal plug contact is disposed within a contact region and a field oxide layer electrically isolates separates this metal plug contact from the contact region since the metal plug contact is within the contact region. This is clearly contradictory.

Claims 2-4, 6-8 are also rejected due to their dependency upon their rejected base claims 1 and 5 above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

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by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-8, 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Deboer et al.

Regarding claim 1, as best the Examiner is able to ascertain the claimed invention, Deboer et al discloses on figure 5 a semiconductor device adapted to prevent and/or thwart reverse engineering comprising a field oxide layer 16 disposed on a semiconductor substrate 12; a metal plug contact 39 disposed within a contact region and above said field oxide layer wherein said metal plug contact contacts said field oxide layer and wherein said field oxide layer electrically isolates said metal plug contact from said contact region; and a metal 60 connected to said metal plug contact.

Regarding claims 2-4, 17, Deboer et al discloses on figure 5 all the structure set forth in the claimed invention.

Regarding claim 5, as best the Examiner is able to ascertain the claimed invention, Deboer et al discloses on figure 5 a method for preventing and/or thwarting reverse engineering comprising steps of providing a field oxide layer 16 disposed on a semiconductor substrate 12; providing a metal plug contact 39 disposed within a contact

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region and above said field oxide layer wherein said metal plug contact 39 contacts said field oxide layer wherein said metal plug contact contacts said field oxide layer and wherein said field oxide layer electrically isolates said metal plug contact from said contact region; and connecting metal 60 to said plug contact.

Regarding claims 6-8, 18, Deboer et al discloses on figure 5 all steps of the method set forth in the claimed invention.

Claims 9-16, 19-20, 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Chuang.

Regarding claim 9, Chuang discloses on figure 1C a semiconductor device adapted to prevent and/ or thwart reverse engineering comprising field oxide layer 104 disposed on a semiconductor substrate 100; a metal plug contact **124c** disposed outside a contact region 116a and above said field oxide layer, wherein said metal plug contact **124c** is electrically isolated from said contact region 116a; and a metal 126 connected to said metal plug contact.

Regarding claims 10-12, 19, 23, Chuang discloses on figure 1C all the structures set forth in the claimed invention.

Regarding claim 13, Chuang discloses on figure 1C a method for preventing and/or thwarting reverse engineering comprising steps of providing a field oxide layer 104 disposed on a semiconductor substrate 100; providing a metal plug contact **124c** disposed outside a contact region 116a and above said field oxide layer wherein said

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metal plug 124c is electrically isolated from said contact region 116a; and connecting a metal 126 to said metal plug contact.

Regarding claims 14-16, 20, 24, Chuang discloses on figure 1C all steps of a method set forth in the claimed invention.

Response to Arguments

Applicant's arguments filed on 7/22/2003 have been fully considered but they are not persuasive.

With respect to claims 1 and 5, applicant argues that Deboer does not disclose, "wherein said filed oxide layer electrically isolates said metal plug contact from said contact region" as recited in now amended claims 1 and 5. However, mentioned above, this claim language is clearly contradictory. Nevertheless, the contact region is a broad term which is hereby considered extending widely between the field oxide 16 in figure 5 of Deboer. Hence, the field oxide 16 electrically isolates the metal plug contact from the contact region. Therefore, Deboer still reads on the claimed invention.

With respect to claims 9 and 13, applicant argues that Chuang does not disclose a metal plug contact is electrically isolated from the contact region as recited in now amended claims 9 and 13. However, Chuang clearly discloses on figure 1C a metal plug contact 124c is electrically isolated from the contact region 116a. Further, the metal plug contact 124c contacts the field oxide 104 via the silicide layer 120d therein.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (703) 308-1269. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7382 for regular communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN
September 5, 2003

A handwritten signature in black ink, appearing to be 'Eddie Lee', with a large, sweeping initial 'E'.

EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800